

**THIS OPINION WAS NOT WRITTEN FOR PUBLICATION**

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** RONALD S. COK  
and  
HORIA NEAMTU

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Appeal No. 96-2692  
Application 08/310,892<sup>1</sup>

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ON BRIEF

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<sup>1</sup> Application for patent filed September 22, 1994. According to appellants, the application is a continuation of Application 07/866,723, filed April 10, 1992, abandoned.

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Application 08/310,892

Before THOMAS, BARRETT and FLEMING, *Administrative Patent Judges*.

FLEMING, *Administrative Patent Judge*.

### **DECISION ON APPEAL**

This is a decision on appeal from the final rejection of claims 1, 7 and 15, all of the claims pending in the present application. Claims 2 through 6, 8 through 14, 16 and 17 have been canceled.

The invention is directed to a method for broadcasting a data set distributed over various processors on a multi-processor ring so that every processor will contain the complete data set.

The independent claim 1 is reproduced as follows:

1. A method of redistributing a data set having data subsets distributed in a ring of processors, the ring of processors being interconnected with bi-directional links such that each processor in the ring is connected for data transmission to neighboring processors in both directions around the ring, the bi-directional links having an interconnection bandwidth, said method comprising the steps of:

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(a) transmitting local data subsets simultaneously in both directions of the ring simultaneously from all processors in the ring; and

(b) transmitting foreign data subsets in a direction of travel of the foreign data subsets around the ring until all processors in the ring have received the data set, whereby a redistribution of the distributed data subsets that saturates the interconnection bandwidth, minimizes the number of operations, passes data the minimum distance necessary, and minimizes buffer memory requirements is achieved.

The Examiner relies on the following references:

Neches et al. (Neches) 1983	4,412,285	Oct. 25,
Allen et al. (Allen) 1987	4,663,706	May 5,
Childs et al. (Childs) 1993	5,250,943	Oct. 5,
Cok 1995	5,432,909	July 11,

Claims 1, 7 and 15 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which the appellants regard as their invention. Claims 1, 7 and 15 stand rejected under

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35 U.S.C. § 103 as being unpatentable over Allen in view of Childs and Neches. In the Examiner's answer, the Examiner set forth a new ground of rejection in which claims 1, 7 and 15 stand rejected under the judicially created doctrine of obviousness- type double patenting over claims 1 and 3 of Cok. However, in a letter dated May 14, 1996, the Examiner withdraws the double patenting rejection because of the Appellants' filing of a terminal disclaimer.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the briefs<sup>2</sup> and answer for the respective details thereof.

#### ***OPINION***

After careful consideration, we will sustain the rejection of claims 1, 7 and 15 under 35 U.S.C. § 112. How-

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<sup>2</sup>Appellants filed an appeal brief on December 11, 1995. We will refer to this appeal brief as simply the brief. Appellants filed a reply appeal brief on April 29, 1996. We will refer to this reply appeal brief as the reply brief. The Examiner stated in the Examiner's letter dated May 14, 1996 that the reply brief has been entered and considered but no further response by the Examiner is deemed necessary.

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ever, we will not sustain the rejection of claims 1, 7 and 15 under

35 U.S.C. § 103.

Analysis of 35 U.S.C. § 112, second paragraph, should begin with the determination of whether claims set out and circumscribe the particular area with a reasonable degree of precision and particularity; it is here where definiteness of the language must be analyzed, not in a vacuum, but always in light of teachings of the disclosure as it would be interpreted by one possessing ordinary skill in the art. ***In re Johnson***, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977), ***citing In re Moore***, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Furthermore, our reviewing court points out that a claim which is of such breadth that it reads on subject matter disclosed in the prior art is rejected under 35 U.S.C. § 102 rather than under 35 U.S.C. § 112, second paragraph. ***See In re Hyatt***, 708 F.2d 712, 715, 218 USPQ 195, 197 (Fed. Cir. 1983) and ***In re Borkowski***, 422 F.2d 904, 909, 164 USPQ 642, 645-46 (CCPA 1970).

Appellants' claims 1, 7 and 15 recite "whereby a redistribution of the distributed data subsets that . . .

minimizes the number of operations, passes data the minimum distance necessary, and minimizes buffer memory requirements is achieved." On pages 8 and 9 of the answer, the Examiner argues that Appellants' claims are indefinite because they do not previously set forth the operations, the minimum distance and buffer memory requirements.

Appellants argue in the reply brief that since a whereby clause is considered to be merely an embellishment on the claim to aid understanding, the proper stance for the Examiner to take is to give no patentable weight to statements made in the whereby clause. Appellants argue that it is improper to reject the claim because specific terms in the whereby clause are not found in the body of the claim.

However, Appellants' argument does establish that the claim language is indefinite. The proper determination under

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35 U.S.C. § 112, second paragraph, is whether Appellants' claims set out and circumscribe the particular area with a reasonable degree of precision and particularity. We find that Appellants' claim language as recited in claims 1, 7 and 15 does not set out and circumscribe the particular area with a reasonable degree of precision and particularity in that the language sets forth "the

number of operations," "the minimum distance" and "buffer memory requirements" without any antecedent basis in the claims.

The Examiner also appears to argue that the whereby clause is setting forth a function without the claim setting forth sufficient structure to support the function. We remind the Examiner that the claims before us are method claims and not apparatus claims. Thus, in order to determine if the claim is definite, we must determine if the method steps recited in the claims can provide the functions recited in the Appellants' whereby clause when viewed in light of Appellants'

disclosure. After a careful review of Appellants' disclosure, we find that the method steps as recited in Appellants' claims 1, 7 and 15 are sufficient to provide the functions as recited in Appellants' claimed whereby clause.

In regard to the Examiner's rejection of claims 1, 7 and 15 under 35 U.S.C. § 103, The Examiner has failed to set forth a ***prima facie*** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983).

Appellants argue in the brief and reply brief that there would be no reason to combine the teaching of Allen, a ring multiprocessor communication network with Childs, a multi-stage broadcast network and Neches, a tree-connected network. We agree. The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the



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modification." *In re Fritch*, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), *citing In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). The Examiner has failed to show that the prior art would have suggested to those skilled in the art any reason to make the proposed modification to Allen. Therefore, we will not sustain the Examiner's rejection of claims 1, 7 and 15 under 35 U.S.C. § 103.

In view of the above, we affirm the Examiner's decision that Appellants' claims 1, 7 and 15 are properly rejected under 35 U.S.C. § 112, second paragraph, but we reverse the Examiner's decision that Appellants' claims 1, 7 and 15 are properly rejected under 35 U.S.C. § 103. Therefore, the Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

**AFFIRMED**

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	JAMES D. THOMAS	)	
	Administrative Patent Judge	)	
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		)	BOARD OF
PATENT			
	LEE E. BARRETT	)	APPEALS AND
	Administrative Patent Judge	)	INTERFER-
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	MICHAEL R. FLEMING	)	
	Administrative Patent Judge	)	

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Thomas H. Close  
Patent Legal Staff  
Eastman Kodak Co.  
343 State Street  
Rochester, NY 14650-2201